

coding

4 MIGRANT WOMEN RETURNERS



Food Factory

Software

Beginner

Activity scenario summary:

In this example we will code a project, which replicates the running of a **food factory** that produces cake.

This project will help you develop an understanding how coding is used in the food industry. As part of the activity participants will design a software in which the factory workers will be able to;

First, we are going to program a way to display the list of products and ingredient stocklists

- Display the list of products
- Display the ingredient stocklist with quantities and prices
- Log ingredients that have been used
- Show stock to be replenished
- Log quality control results

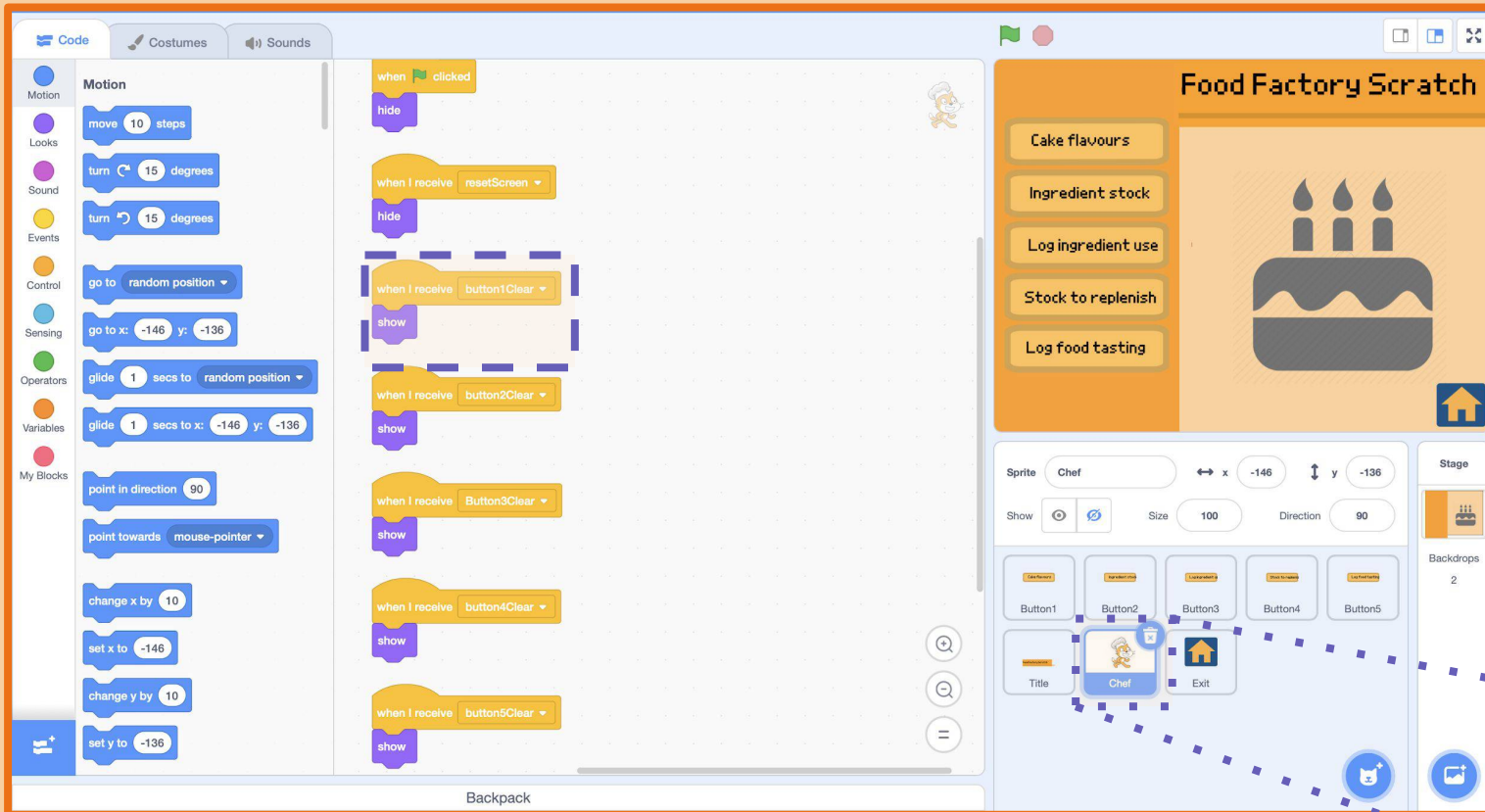
Online template



<https://scratch.mit.edu/projects/649245151>

Programming a menu like this takes time- all of your code will go in the chef sprite in this program (there is no need to worry about creating any new variables or lists or buttons as they are all there for you)

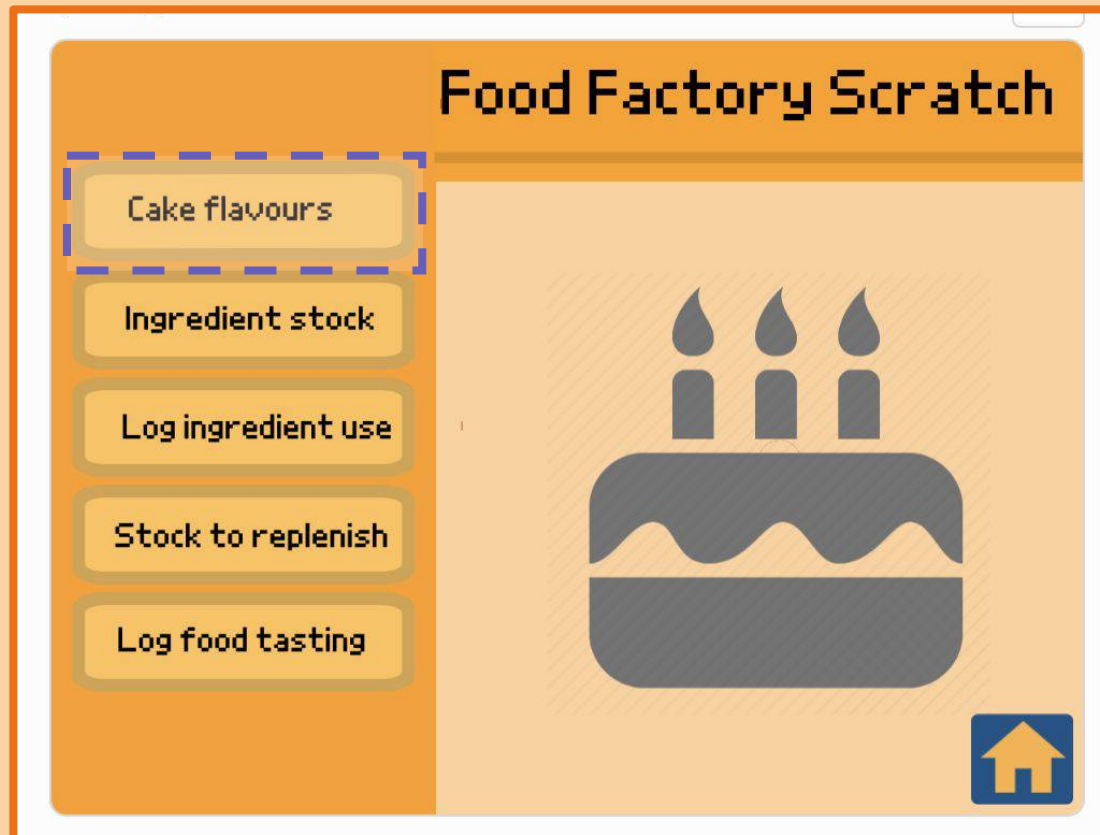
Where to write the code...



All the code will be written in the “Chef” sprite. The code for each button will be written under the yellow event block (for example the code for the “Cake Flavours” button will be under “button1Clear”)



Cake Flavours



The first button we will program is the cake flavours button...

What will happen...



When clicked (after the code has been started by clicking the green flag), this button will display the list of products that the factory makes, in this case three different flavours of cake (strawberry, chocolate and vanilla) and their ratings (coded later)

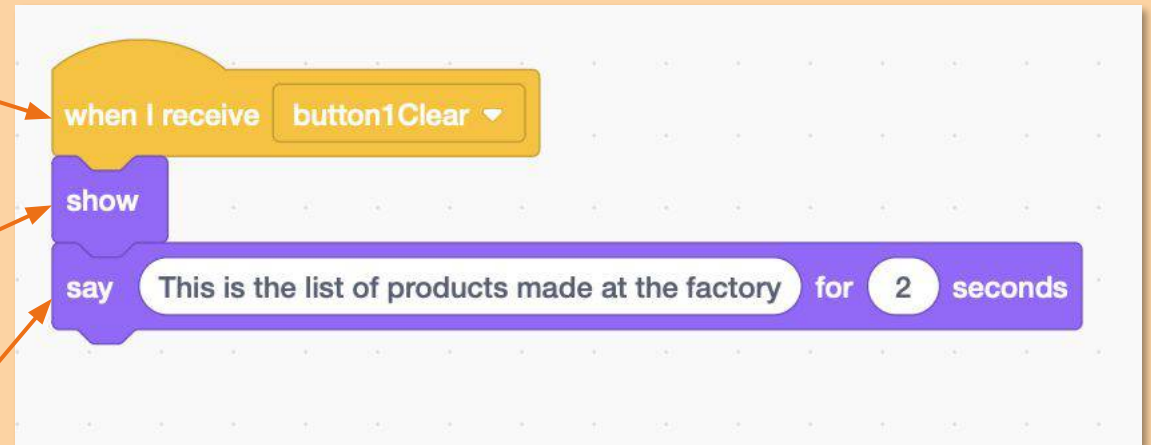
Step 1

Talking chef...

When the button is clicked, whatever follows this event block will be carried out

Show just means that our “chef” cat sprite will appear in the corner, much like in the corner of this slide

The chef will then appear with a speech bubble and say the following text for 2 seconds, to inform the user what is being shown



Step 2

Displaying the lists...

In scratch, when coding you will notice that you can interact with the menu when you enter commands, allowing you to drag the lists to wherever you want them on the screen

The “show list” function will just display both of these lists and their contents which has been added for you

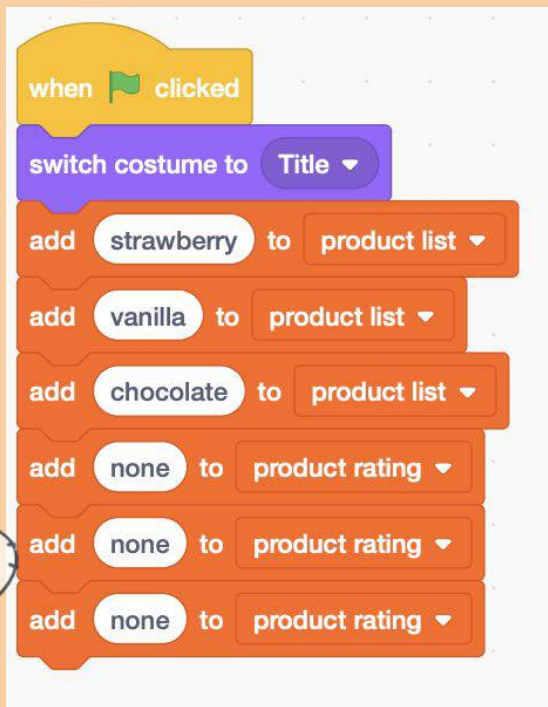
```
when I receive button1Clear
show
say 'This is the list of products made at the factory' for 2 seconds
show list product list
show list product rating
```



Inside the lists

This has been done for you!

You don't need to worry about programming this as it is built into the menu, but adding to lists is an important function

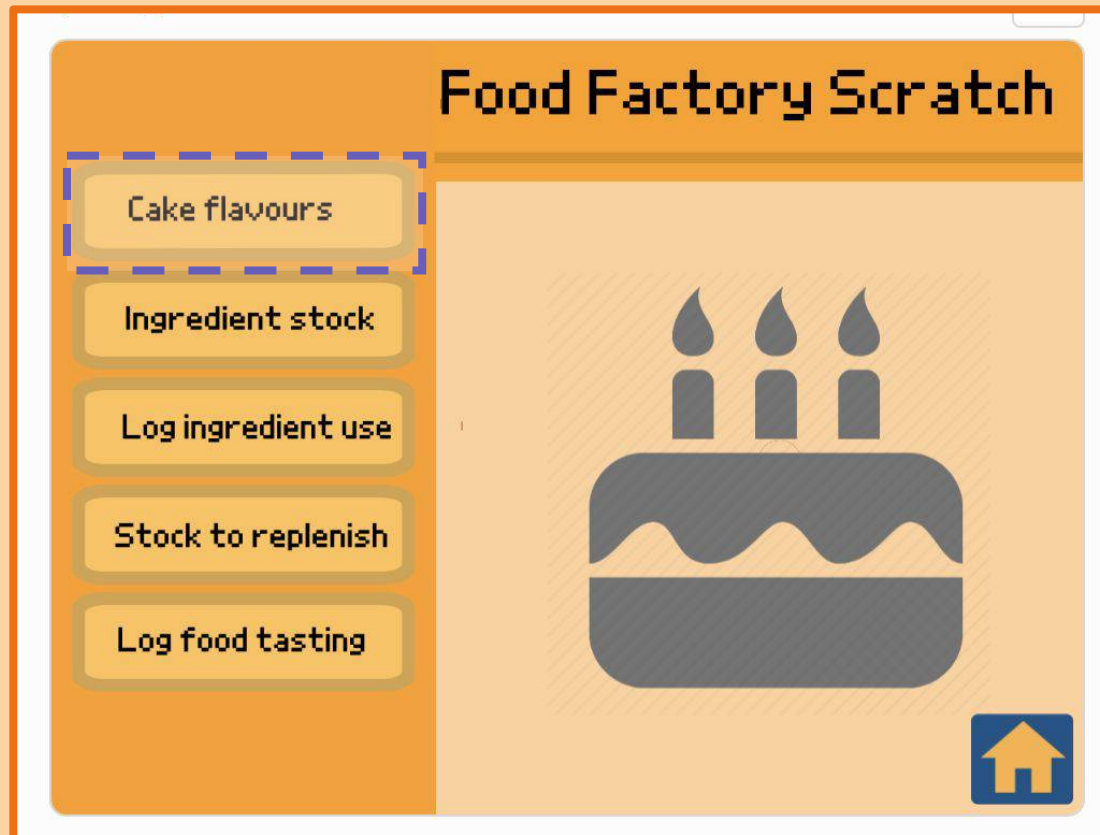


```
when clicked
  switch costume to Title
  add strawberry to product list
  add vanilla to product list
  add chocolate to product list
  add none to product rating
  add none to product rating
  add none to product rating
```

product list		product rating	
1	strawberry	1	none
2	vanilla	2	none
3	chocolate	3	none
+ length 3 =		+ length 3 =	



Ingredient stock



The second button we will program is the ingredient stock button...

What will happen...



When clicked, this button will display the list of ingredients that the factory uses to make each product and the cost of these ingredients (Remember: the lists are already made for you)

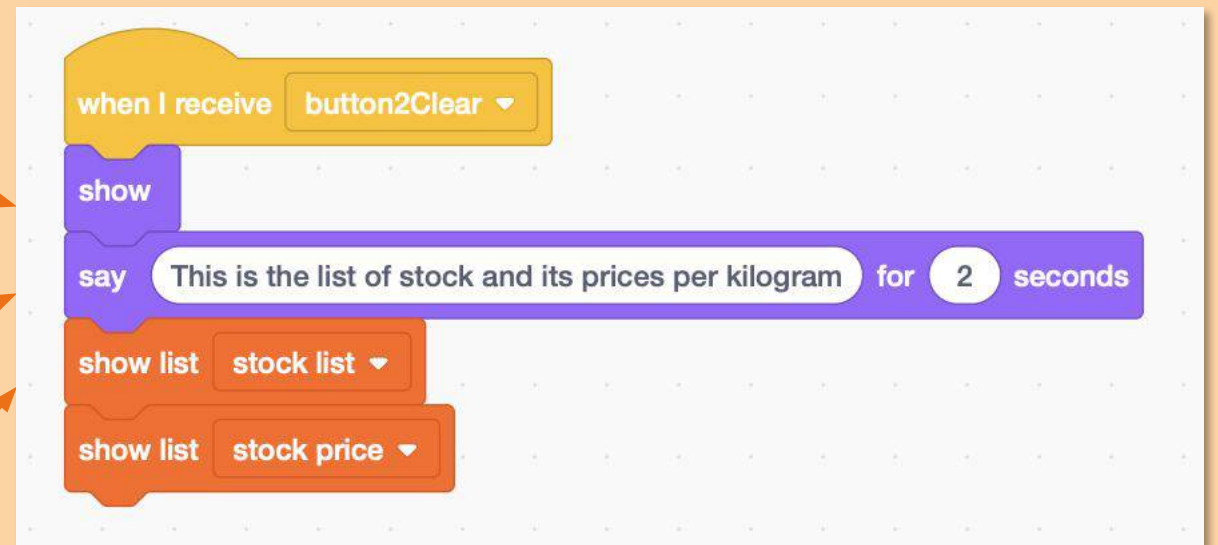
Step 4

The second button (which is very similar to the first)...

When the button is clicked, whatever follows this event block will be carried out

The chef will then appear with a speech bubble and say the following text for 2 seconds, to inform the user what is being shown

The “show list” function will just display both of these lists and their contents which has been added for you



```
when I receive button2Clear
show
say This is the list of stock and its prices per kilogram for 2 seconds
show list stock list
show list stock price
```



The final code so far ...

```
when I receive button1Clear
show
say This is the list of products made at the factory for 2 seconds
show list product list
show list product rating

when I receive button2Clear
show
say This is the list of stock and its prices per kilogram for 2 seconds
show list stock list
show list stock price
```

The image shows two separate event-driven code blocks in a Scratch-like environment. The first block is triggered by 'when I receive button1Clear' and contains a 'show' block, a 'say' block with the text 'This is the list of products made at the factory' for 2 seconds, and two 'show list' blocks for 'product list' and 'product rating'. The second block is triggered by 'when I receive button2Clear' and contains a 'show' block, a 'say' block with the text 'This is the list of stock and its prices per kilogram' for 2 seconds, and two 'show list' blocks for 'stock list' and 'stock price'.

Congratulations!

**You have completed the first two buttons
in the food management software.**

**You are ready to move on to the
intermediate level...**

